METHODS AND ARRANGEMENTS FOR REPAIRING PORTS

ABSTRACT OF THE DISCLOSURE

Methods and systems for repairing ports are disclosed. Embodiments may detect a hard failure of a port, select an alternative port from existing ports in use within an array, and share the alternative port to route operands bound for the first port and the alternative port, to transmit operands associated with the failed port to the corresponding destination unit. Embodiments include an additional wire, or an alternative port path, that couples the alternative port to the destination unit that is associated with the first port. For instance, in a multi-pipeline processor, an operand of an instruction that is bound for the failed read port may be routed via an alternative read port to the corresponding execution unit. Similarly, data bound for failed write ports may be, e.g., written back to a register file by routing the data via an alternative write port of the register file.